

# SwitchMan

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## User's Manual

SW2

SW4

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Raritan Computer, Inc  
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**Raritan Computer Inc.**  
400 Cottontail Lane  
Somerset, NJ08873  
USA  
Tel: 1-732-764-8886  
Fax: 1-732-764-8887  
E-mail: [sales@raritan.com](mailto:sales@raritan.com)  
[Http://www.raritan.com](http://www.raritan.com)

**Raritan Computer Europe, B.V.**  
Eglantierbaan 16  
2908 LV Capelle aan den IJssel  
The Netherlands  
Tel: 31-10-284-4053  
Fax: 31-10-284-4049  
E-mail: [sales.europe@raritan.com](mailto:sales.europe@raritan.com)  
[Http://www.raritan.com](http://www.raritan.com)

**Raritan Computer Japan, Inc.**  
Kuga Building 7F, 11-6  
Kuramae 4-chome Taitoo-Ku  
Tokyo 111-0051, Japan  
Tel: 81-3-5833-6360  
Fax: 81-3-5833-6336  
E-mail: [sales.japan@raritan.com](mailto:sales.japan@raritan.com)  
[Http://www.raritan.co.jp](http://www.raritan.co.jp)

**Raritan Computer Taiwan, Inc.**  
5F, 121, Lane 235, Pao-Chiao Rd.,  
Hsin-Tien City, Taipei Hsien  
Taiwan  
Tel: 886-2-8919-1333  
Fax: 886-2-8919-1338  
E-mail: [sales.asia@raritan.com](mailto:sales.asia@raritan.com)  
[Http://www.raritan.com.tw](http://www.raritan.com.tw)

## FCC NOTIFICATION

This equipment has been tested and found to comply with the limits a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential environment may cause harmful interference.

Product names mentioned in this document are trademarks or registered trademarks of their respective companies. PS/2, PC/AT, and IBM are registered trademarks of the International Business Machines Corporation.

## CANADIAN NOTIFICATION

This Class B digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du règlement sur le matériel brouilleur du Canada.

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# Overview

SwitchMan is the desktop KVM (keyboard, video, mouse) switch for those who run more than one computer at a desk. By having only one keyboard, monitor, and mouse, you reclaim your desktop while saving time and money. SwitchMan uses the same bulletproof design as Raritan's professional-grade products and is available in two-channel and four-channel models.

Raritan's unique keyboard and mouse emulation technology dedicates individual processors to each channel. Every computer continuously "sees" its own keyboard and mouse to ensure flawless booting and switching. You can select computers by touching individual channel buttons on the front panel or by using simple hot-key commands.

SwitchMan's versatile design gives you the choice of either a horizontal or a space-saving vertical installation. Standard features like Scan and LED indicators make operation of SwitchMan simple and convenient. Connect your computers to SwitchMan by using industry standard KVM cables. For the highest resolution video, use Raritan's premium tangle-proof cables. Plug your standard PS/2 keyboard, VGA monitor, and PS/2 mouse right into SwitchMan.

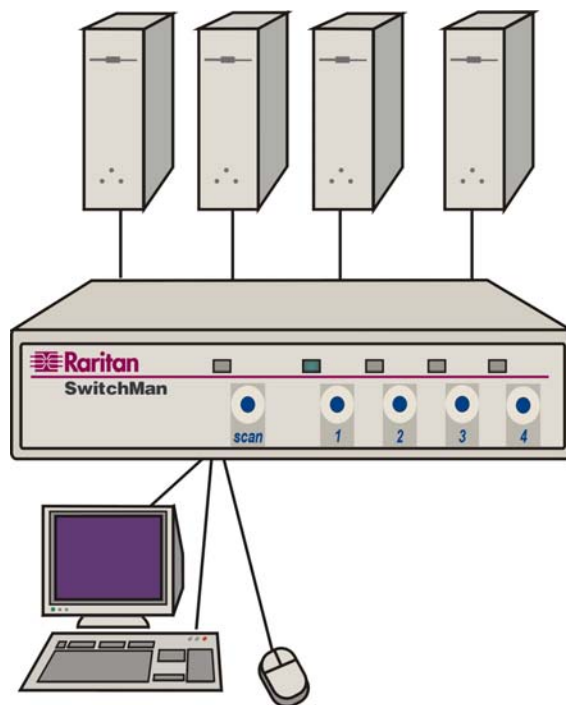


Figure 1. SwitchMan (SW4 4-channel)

## Feature

- \* Compatible with all PS/2-style or AT-style computers
- \* Individual front panel selection buttons with LED indicators
- \* Dedicated keyboard/mouse emulators for each computer to provide flawless operation
- \* High-resolution video to 1600X1200
- \* PS/2 IntelliMouse support
- \* Scan button to scan computers at a programmable rate
- \* Places either horizontally or vertically to save additional space
- \* Powered by connected computers
- \* Use Raritan's premium, tangle-proof cables for highest resolution video requirements
- \* Use inexpensive, industry standard KVM cables for typical applications.



Figure 2. SW2 (back panel, vertical position)

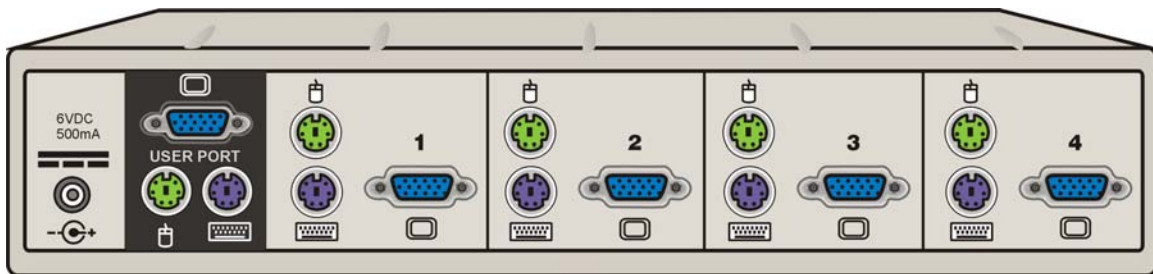


Figure 3. SW4 (back panel, horizontal position)




# Installation Procedures

Begin installation by connecting one computer to SwitchMan. Once the first computer is operational, then connect additional computers.

SwitchMan can use industry standard keyboard, video, and mouse (KVM) cables or can use Raritan's premium, tangle-proof KVM cables.

Caution: Make sure that each computer is powered OFF before it is connected to SwitchMan.

1. Connect your keyboard, monitor, and mouse to the back panel of SwitchMan. Use the black section marked USER PORTS for these connections.
2. Using either end of the KVM cables, connect the keyboard, monitor, and mouse connectors to the section marked PC 1 on the SwitchMan back panel. (See figure 2 for SW2 or figure 3 for SW4)

Note: With Raritan's tangle-proof KVM cables, each connector is marked with a symbol- keyboard,  monitor,  mouse-for ease of connection

3. Plug the other ends of the KVM cable into the corresponding ports on the first computer
4. Power ON the computer. The LED above the channel selection button for the powered computer illuminates.
5. The video from the connected computer is displayed on the monitor. The keyboard and mouse operate as if they were connected directly to the computer.

Note: SwitchMan is automatically powered ON when at least one connected computer is powered ON.

6. After the first computer is working, connect the remaining computers to SwitchMan. Make sure each computer is powered OFF before it is connected to SwitchMan.

## Installation Notes

- \* Switchman computer ports are PS/2 style. You may also connect AT-style computers. Use Raritan keyboard/mouse port adapter “APSAT” on PS/2 cables to plug into a computer with “AT” keyboard port and serial mouse port.
- \* Switchman converts keyboard and mouse signals to PS/2 and requires either a PS/2 mouse and PS/2 keyboard or an AT Extended keyboard with adapter.

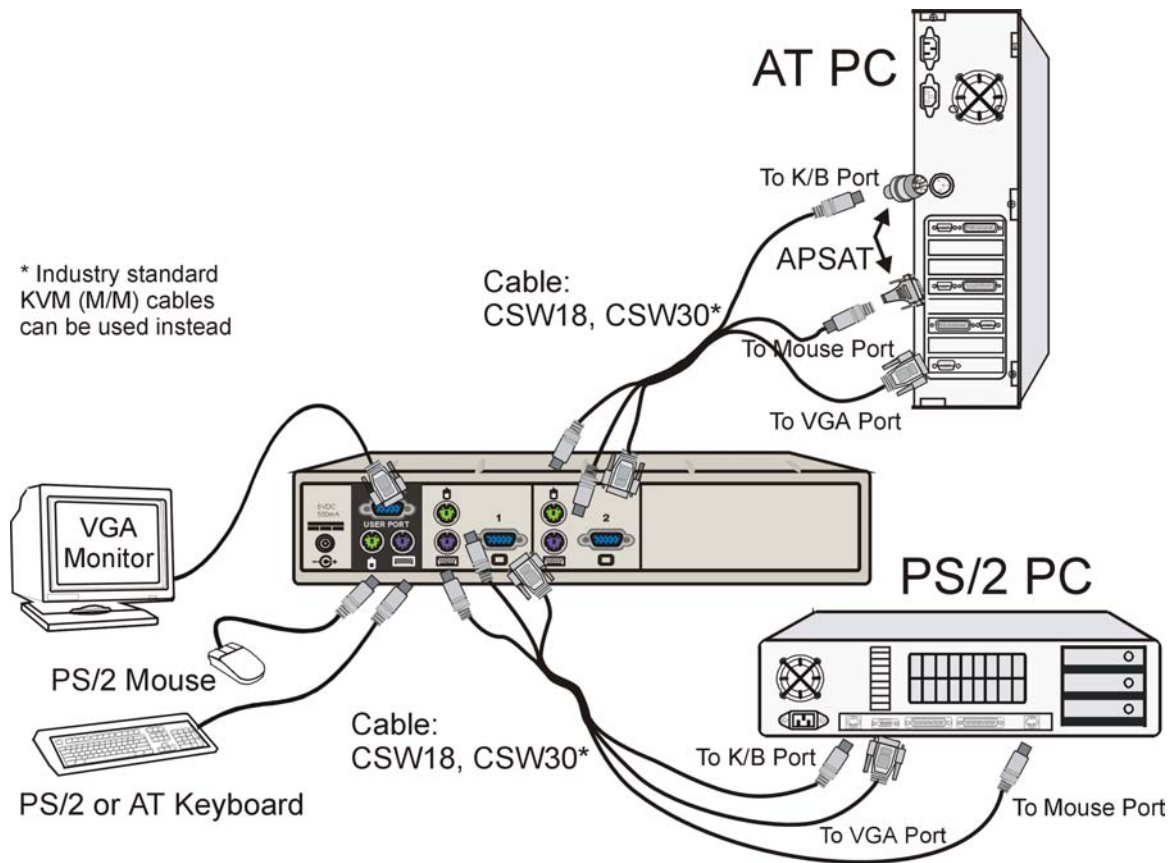


Figure 4. Cabling diagram



# Operation

You can select a computer from the front panel of SwitchMan or through the keyboard in hot-key mode. The LEDs on the front panel of SwitchMan indicate which computer, or channel, is currently selected and ready for use

SwitchMan automatically senses which channels are active-that is, those that have computers that are connected and powered ON. In Scan mode, SwitchMan cycles through these active channels. The video is displayed, and the keyboard and mouse are active for each successive computer.

## *Front Panel*

### Select channels

To select a computer from the front panel, simply press the button corresponding to the desired channel. The LED above the channel illuminates and the video from that connected computer is displayed. The keyboard and mouse become active for that computer.

The monitor will remain blank if you choose an inactive channel.

### Scan channels

Scan is a feature that automatically steps through each active channel. When Scan is active, SwitchMan allows you to view the video of each active channel for a set interval (scan rate). SwitchMan then cycles to the next active channel. The default scan rate is three seconds. You can set the scan rate from the front panel or in hot-key mode

To activate Scan, press the scan button on the SwitchMan front panel.

To exit Scan, press the scan button (toggle ON/OFF) again.

Note: SwitchMan automatically skips inactive channels in Scan mode.

### Set Scan rate

The scan rate can be changed through front panel buttons to preset intervals. Press the scan button followed by the channel selection button that corresponds to the desired scan rate (see chart below). The light above the button blinks twice to acknowledge the setting, and scanning continues at the new rate.

Channel 1 = 1 second

Channel 2 = 3 seconds

Channel 3 = 8 seconds

Channel 4 = 16 seconds

To exit Scan, press the scan button (toggle ON/OFF).

## ***Hot-Key Mode***

When you activate hot-key mode, SwitchMan captures and interprets keystrokes as front panel functions. No keystrokes pass through to the computer(s).

Note: Hot-key mode operation requires a PS/2-style or an Extended AT-style keyboard.

### **Hot-key activation**

To enter hot-key mode, press <Scroll Lock> twice rapidly. SwitchMan enters hot-key mode, and the three keyboard LEDs-Num Lock, Caps Lock and Scroll Lock-blink continuously. To exit hot-key mode, press the <Esc> key.

### **Select a computer channel by number**

You can select channels by using hot-key mode. The LED on the front panel above the corresponding computer is turned ON.

1. Activate hot-key mode.
2. Press the <c> key.
3. Press number key corresponding to the computer.
4. Press <Enter>.

For example, to select channel two, enter hot-key mode and then press <c> <2> <Enter>.

### **Select a computer channel by using arrow keys**

In hot-key mode, you can step through the channels. Press the <á> or <à> arrow to increment and press the <ß> or <â> arrow keys to decrement the channel numbers.

## Scanning channels

In hot-key mode, press the <s> key to activate Scan. The LED above the scan button is illuminated, and SwitchMan begins scanning active channels.

## Set Scan rate

You can change the default Scan rate to an interval from 1 to 99 seconds. The LED above the most recently selected channel buttons blinks twice to acknowledge the change, and scanning starts at the new rate.

1. Enter hot-key mode.
2. Press the <s> key.
3. Press number key for the desired rate (1-99).
4. Press <Enter>.

For example, to set the rate to 30 seconds, enter hot-key mode and then press <s> <30> <Enter>.

## Change hot-key mode activator

While in hot-key mode, you can change the key that activates hot-key mode. The default activation key is <Scroll Lock>. <Num Lock> or <Caps Lock> can be used instead.



















To make a new hot-key mode activator, enter hot-key mode and then press <Scroll Lock>, <Caps Lock>, or <Num Lock> followed by <Enter>. The new hot-key activator is now set.

## Exit hot-key mode

To exit hot-key mode at any time, press <Esc>. The LEDs on the keyboard stop blinking, and the keyboard reverts to normal function

When in hot-key mode, if the keyboard is inactive for 30 seconds, SwitchMan automatically exits hot-key mode.

## Hot-key command table

TASKS	KEY STROKES
Activate hot-key mode	 + 
Exit hot-key mode	
Increment channel number	 or 
Decrement channel number	 or 
Select channel number	 + (n) + 
Toggle Scan ON/OFF	
Set Scan rate	 + (n) + 
Make Num Lock the hot-key mode activator	 + 
Make Scroll Lock the hot-key mode activator	 + 
Make Caps Lock the hot-key mode activator	 + 

# Troubleshooting

The following table lists probable solutions for problems that may be encountered during SwitchMan installation or operation.

<b>Trouble Symptom</b>	<b>Probable Cause</b>	<b>Solution</b>
No front panel LEDs	Bad connection(s)	Check cable connection(s)
	Computer not powered ON	Power ON computer
	Notebook computer or Guardian device in use	Not enough power to run SwitchMan. Install notebook or Guardian after connecting other PCs.  Otherwise, do not use Notebook or Guardian.
Channel LED flashes continuously	Computer not powered ON for that channel	Power ON the computer.
	Keyboard or mouse sending input through SwitchMan	Stop using the keyboard and/or mouse during channel selection.
No video display for computer	Loose video connection(s)	Check and reconnect cables
	Problems with the monitor	Power OFF the computers. Connect directly to the computer the monitor that is not functioning properly.  If the problem persists, it is not due to SwitchMan.  If the display is correct when directly connected, contact SwitchMan dealer.
Keyboard error from computer	Computer keyboard cable connection	Check keyboard cable connection of the computer not operating properly.

Unit does not activate hot-key mode	Keyboard	Hot-key mode works only with PS/2 or Extended AT-style keyboards.
Unable to select Channel	Unit in Scan mode	Exit Scan mode
Keyboard or mouse does not respond or does not work properly	Keyboard and mouse cables are loose or have been crossed	<p>Check connection(s) of the keyboard and mouse to SwitchMan and computer.</p> <p>Be sure keyboard is full PS/2 or Extended AT style, and mouse is PS/2 style.</p> <p>Power OFF the computer. Switch the keyboard and mouse connectors, and reboot the computer.</p> <p>If the problem persists, power OFF the computer. Connect the keyboard directly to the computer to determine whether the problem is with the computer port.</p> <p>If the problem is not with the computer port, connect the computer to a different PC channel in the back of SwitchMan and restart the computers.</p> <p>If the problem persists, contact dealer.</p>

For Raritan technical support, either go to:

[www.raritanonline.com](http://www.raritanonline.com)

Or call your local reseller or distributor

# Appendix

## *Specifications of SwitchMan*

SW2 (2-Channel SwitchMan)

SW4 (4-Channel SwitchMan)

Dimensions	10.00" (W) x 5.50" (D) x 2.13" (H) 256mm x 140mm x 53mm	
Weight	1.7 lb. (0.77 kg)	
DC Power Input	6V/1.4 amp. Adapter (optional) P/N A10D1-06MP	
User connection ports	VGA monitor	HD15 female video
	PS/2 keyboard	mini-DIN 6 pin female
	PS/2 mouse	mini-DIN 6 pin female
Computer connection ports	VGA monitor HD15	
Female video		
	PS/2 keyboard	mini-DIN 6 pin female
	PS/2 mouse	mini-DIN 6 pin female
	Serial mouse	DB9 female
Agency approvals	FCC Class B CE	
Warranty	One year	

## *Specifications of Cables*

Use Raritan's premium, tangle-proof cables or Raritan's standard cables\*

Raritan premium, tangle-proof cables: One cable required for each PC

CSW18	6' cable for PS/2 and VGA connections
CSW30	10' cable for PS/2 and VGA connections
APSAT	AT/serial converter kit for above cables

Raritan standard cables: One cable kit required for each PC

CSK18	6' cable for PS/2 and VGA connections
CSK30	10' cable for PS/2 and VGA connections
APSAT	AT/serial converter kit for above cables